

REMARKS / ARGUMENTS

Claims 14-32 remain pending in this application. Claims 1-13 have been canceled without prejudice or disclaimer. New claims 14-32 have been added.

Priority

Applicants appreciate the Examiner's acknowledgment of the claim for priority and safe receipt of the priority document.

Title

The title of the invention has been rewritten into a more descriptive form.

35 U.S.C. §§101 and 112

The rejection under this section have been rendered moot by the cancellation of the previously pending claims, without prejudice or disclaimer, in favor of new claims. It is submitted that the new claims satisfy the requirements of these sections.

35 U.S.C. §§102 and 103

Claims 1-3, 7-9 and 12-13 stand rejected under 35 U.S.C. §102(e) as being anticipated by Constable et al (U.S. Patent No. 6,792,519). Claims 4-5 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Constable et al in view

of Ruff et al (U.S. Patent No. 5,706,472). Claim 6 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Constable et al in-view of Gunderson (U.S. Patent No. 6,073,220). Claims 10-11 stand rejected 35 U.S.C. §103(a) as being unpatentable over Constable et al in view of Tanenbaum ("Structured Computer Organization"). These rejections are traversed as follows.

According to the present invention, a non-removable storage medium, such as a hard disk drive, can be made to look like a removable storage medium, such as a floppy disk, optical disk, flash memory, etc., to a computer. Therefore, the computer can view the non-removable storage medium as a removable storage medium.

The data storage apparatus of the pending claims includes a control unit and a non-removable storage medium. The control unit virtually provides a virtual disk drive unit to a computer.

Then, in response to receiving an instruction to load a removable storage medium to the virtual disk drive unit, the control unit modifies relationship information so as to relate the virtual disk drive unit and a volume that is prepared on the non-removable storage medium so that the computer can recognize the volume as the removable storage medium. As such, the user of the computer can use or change a volume which is prepared on the non-removable storage medium as the removable storage medium.

None of the cited references disclose these features of the present invention. Constable et al disclose a virtual data storage (VDS) system having a VDS controller

which partitions a memory system into multiple virtual data storage devices and then restricts a computer system from communicating with certain ones of these virtual storage devices. Therefore, the VDS controller selectively isolates at least one of the virtual data storage devices from communicating with the computer system in order to prevent corruption of information stored therein (see Abstract).

However, such disclosure has no relevance to the presently claimed invention. Constable et al neither disclose nor suggest that the VDS controller provides a virtual disk drive unit which enables a computer to see a removable storage medium even though the storage medium is actually non-removable. The deficiencies in Constable et al are not overcome by resort to any of the remaining cited references. Ruff et al are merely relied upon for identifying a graphic user interface that identifies file system types. Gunderson is merely relied upon for providing a disk drive back-up system. Tanenbaum is merely relied upon for disclosing a program for managing access to data. None of these references disclose or suggest a storage apparatus having a control unit which provides a virtual disk drive unit so that the computer can see removable storage devices even though the actual storage devices are non-removable. As such, it is submitted that the pending claims patentably define the present invention over the cited art.

Conclusion

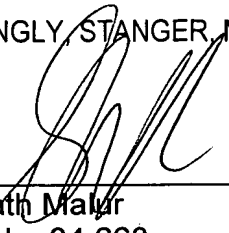
Appl. No. 10/720,308
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In view of the foregoing, Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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